

What is claimed is:

1. A method for allocating satellite channel used in satellite communications system transmitting data bi-directionally between central station and a plurality of remote stations via a satellite in which a plurality of first forward satellite channels used for transmitting data from said each remote station are fixedly set beforehand, comprising the step of allocating a second forward satellite channel set beforehand with a larger capacity than that of said first satellite channel apart therefrom for data transmission, in case that a predetermined condition related to the data transmission from the remote station is satisfied, to the remote station satisfying said condition from the central station.

2. A satellite communications system for transmitting data from a central station to a plurality of remote stations through backward satellite channel and for transmitting data from said plurality of remote stations to said central station through a fixedly predetermined plurality of forward satellite channels, wherein:

said remote station includes means for transmitting a channel request data for use permission of the second satellite channel being set beforehand apart from said first forward satellite channel and having a larger capacity than that of said first satellite channel; and

said central channel includes means for allocating said

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second forward satellite channel for the purpose of data transmission to the remote station on condition that said second forward satellite channel being unoccupied.

3. The satellite communications system according to claim 2, wherein:

said means for transmitting said channel request data transmits said channel request data to said central station in case that a request-to-send data larger than a predetermined capacity is generated; and

said second forward satellite channel is a channel for transmitting said data larger than the predetermined capacity.

4. The satellite communications system according to claim 2, wherein:

said plurality of first forward satellite channel corresponds to a predetermined first uplink frequency band and also corresponds to either one of the plural time slots set within a predetermined frame; and

said second forward satellite channel corresponds to a second uplink frequency band different from said first forward frequency band.

5. The satellite communications system according to claim 2, wherein:

said plurality of first forward satellite channel corresponds to a predetermined first uplink frequency band and to m pieces among the plural time slot set within a



corresponds to a predetermined first uplink frequency band and to the plural time slots set within a predetermined frame; and

said second forward satellite channel corresponds to a second uplink frequency band different from said first uplink frequency band.

8. The satellite communications system according to claim 6, wherein:

said plurality of first forward satellite channel corresponds to a predetermined first uplink frequency band and to  $m$  pieces among the plural time slots set within a predetermined frame; and

said second forward satellite channel corresponds to  $n$  ( $n > m$ ) pieces of time slot other than said time slots set within said first uplink frequency band.

9. An earth station for satellite communications transmitting data to other plurality of earth stations through backward satellite channel and receiving the data transmitted from said other plurality of earth stations through fixedly predetermined plurality of first forward satellite channels comprising:

discriminating means for discriminating whether a predetermined condition related to the data transmission from either one of said other earth stations is satisfied or not;

channel allocating means for allocating transmission a second forward satellite channel set beforehand with a larger

capacity than that of said first forward satellite channel apart therefrom for data transmission in case that said predetermined condition is satisfied by said discriminating means, to the other earth station satisfying said condition.

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